



**NEXT GENERATION SPACE TELESCOPE**

**NGST**

# **NGST STUDY**

**JOHN H. CAMPBELL**

**April 15, 1996**



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# NGST

## STRATEGY

- PRODUCE A STUDY REPORT 8/97 THAT IS INPUT TO THE DECADAL REVIEW
  - DEMONSTRATE THAT AN NGST CAN BE BUILT AND FLOWN FOR GREAT SCIENCE AND ACCEPTABLE LIFE CYCLE COSTS
  - IDENTIFY KEY TECHNOLOGIES THAT MUST BE DEVELOPED AND DEMONSTRATED
- PRODUCE AN INTERIM STUDY REPORT 11/96 THAT IS A POWERFUL PRECURSOR TO THE FINAL REPORT

**THESE REPORTS ARE ESSENTIALLY PROPOSALS TO SCIENCE, INDUSTRY, AND GOVERNMENT FOR PROCEEDING WITH THE DEVELOPMENT OF AN NGST.**

**(AN NGST WILL NOT BE PROPOSED. *FEASIBILITY* OF AN NGST WILL BE PROPOSED)**



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## **STUDY OUTLINE**

- 1. Executive Summary**
- 2. The Big Picture: How does a Large Telescope fit into the US and World Astronomy Programs?**
  - a Linkage to ExNPS**
  - b Linkage to HST, SOFIA, SIRTf, others**
  - c Linkage to Space Shuttle and Station (if so)**
- 3. The Science Drivers**
- 4. Study Methodology**
- 5. The Selected Architecture**
- 6. The Suite of Instruments**
- 7. Subsystem Options Retained/Eliminated**
- 8. Management and Procurement Methods**
- 9. Cost Estimates**
- 10. Alternative Architectures**
- 11. High Risk/High Payoff Technology Demonstrations**
- 12. Options for International Collaborations**
- 13. Recommendations**
- 14. Breaking the Hubble Paradigm**



JHC:mdf.4/24/96



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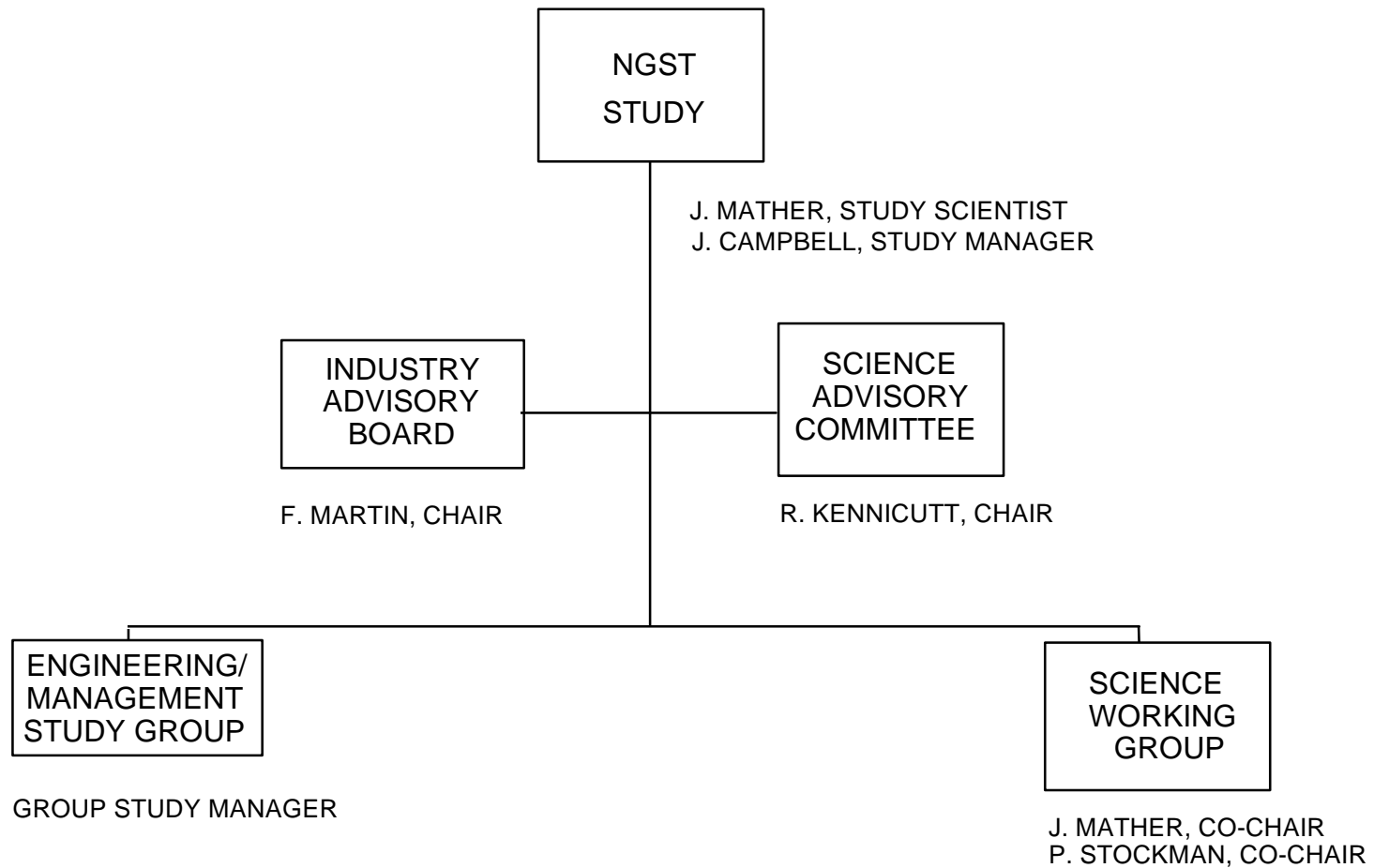
GODDARD SPACE FLIGHT CENTER		Next Generation Space Telescope Study Schedule																								STATUS AS OF 01/22/96												
APPVL RESP _____																																						
ACCOMP RESP _____																																						
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Architecture Review																																						
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NOTES: MEETINGS SUBJECT TO CHANGE																																						



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## STUDY ORGANIZATION

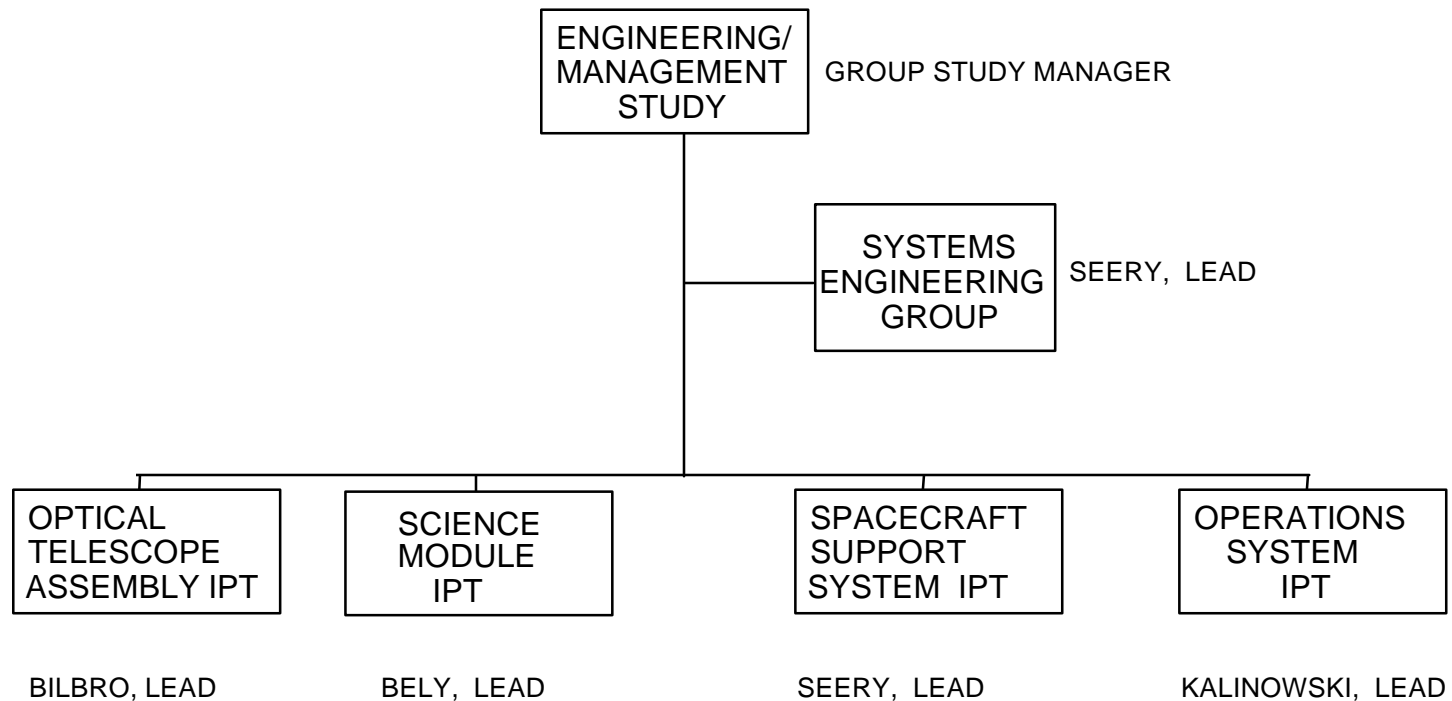




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## ENGINEERING/MANAGEMENT STUDY ORGANIZATION





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## **ACCESS TO THE BROAD COMMUNITY**

- **UNIVERSITIES: SCIENCE WORKING GROUP, SCIENCE ADVISORY GROUP, AND IPT'S, ESPECIALLY THE SCIENCE MODULE IPT**
- **DOD: PHILLIPS LABORATORY IS PARTICIPATING**
- **INDUSTRY: INDUSTRY ADVISORY BOARD, ALL OF THE IPT'S**
  - **APRIL 15 - APRIL 17 LARGE OPTICS WORKSHOP AT MSFC**
  - **APRIL 18 - COOPERATIVE AGREEMENT NOTICE**
- **OTHER CENTERS: MSFC, AMES, LANGLEY AND JPL ARE WITH US**
- **INTERNATIONAL: THE HST ESA/NASA PARTNERSHIP IS A NATURAL ENTRÉE TO AN NGST PARTNERSHIP**
  - **OTHER COLLABORATIONS WILL BE ENCOURAGED**





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## **NGST ROADMAP COOPERATIVE AGREEMENT**

- **ESTABLISH FEASIBILITY OF DEVELOPING NGST**
  - **MEETS THE SCIENCE GOALS OF “HST & BEYOND” COMMITTEE**
  - **LAUNCH IN 2005 TIMEFRAME WITH 10 YEAR LIFE**
  - **\$900M LIFECYCLE COST AND \$135 TECHNOLOGY DEVELOPMENT**
- **\$200K FIXED PRICE FOR EACH AGREEMENT FOR UP 2 TEAMS**
- **SCHEDULE**
  - **4/18 RELEASE**
  - **5/9 PROPOSALS DUE**
  - **5/23 SELECTION**
  - **8/15 REPORT DUE**



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## DEVELOPMENT OF CONCEPTS AND TECHNOLOGY ROADMAP

